

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) Publication number:

0 516 248 A3

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **92202490.6**(51) Int. Cl.⁵: **C23C 28/00, C23C 30/00,
C23C 14/06, C23C 14/12**(22) Date of filing: **02.05.89**(30) Priority: **02.05.88 JP 109479/88
02.05.88 JP 109480/88**(43) Date of publication of application:
02.12.92 Bulletin 92/49(60) Publication number of the earlier application in
accordance with Art.76 EPC: **0 341 010**(84) Designated Contracting States:
CH DE FR GB IT LI(68) Date of deferred publication of the search report:
30.12.92 Bulletin 92/53

(71) Applicant: **ORIENT WATCH CO., LTD.**
4-4, Sotokanda 2-chome Chiyoda-ku
Tokyo(JP)
Applicant: **Murayama, Youichi**
304, Domusu Mejiro, 17-44 Shimoochiai
3-chome
Shinjyuku-ku, Tokyo(JP)

(72) Inventor: **Murayama, Youichi**
304, Domusu Mejiro, 17-44, Shimoochiai
3-Chome
Shinjyuku-Ku, Tokyo(JP)

(74) Representative: **Calamita, Roberto**
Frank B. Dehn & Co., Imperial House, 15-19
Kingsway
London WC2B 6UZ(GB)

(54) **Composite film.**

(57) The present invention relates to a composite film comprising a metal, an alloy and/or an inorganic substance with an organic substance, which is excellent in decorative property, protection and functionality.

Methods applicable for forming such a composite film include a technique of evaporating a metal, an alloy, and/or an inorganic substance and an organic substance, simultaneously exciting the evaporated particles, and causing vapour-deposition in the state of ionized particles, neutral particles or radicals, and a method of sputtering, without excitation, etc.

The film of the present invention has excellent colour tone and wear resistance, and a frictional coefficient lower than that of a film formed from a metal, alloy or inorganic substance alone. Reduction in the consumption of expensive metals, alloys or inorganic substances is also achieved.

EP 0 516 248 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 92 20 2490

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
X	FR-A-2 443 926 (GLYCO-METALL-WERKE DAELEN & LOOS) * page 3, line 24 - page 4, line 32; claims 1,2,13 *	1,3,4	C23C28/00 C23C30/00 C23C14/06 C23C14/12
X	US-A-4 374 717 (DRAUGLIS ET AL.) * claim 1 *	1,3,5	
X,P	DD-A-260 524 (TECHNISCHE UNIVERSITÄT, KARL-MARX STADT) * claims 1,2,4; example 3 *	1,3,5	
A	EP-A-0 195 117 (IBM) * claim 1 *	2	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			C23C
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 26 OCTOBER 1992	Examiner PATTERSON A.M.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons @ : member of the same patent family, corresponding document	